

ABSTRACT

[0093] The invention is directed to a radiation source for generating extreme ultraviolet (EUV) radiation, particularly for photolithography exposure processes. The object of the invention is to find a novel possibility for realizing radiation sources for generating extreme ultraviolet (EUV) radiation which permits a uniform basic construction for ensuring beam characteristics that are reproducible over the long term and in which the source is conceived so as to be flexible with respect to specific applications. This object is met according to the invention in that any plasma generation unit is provided for introducing high energy input supplied in a pulsed manner in a vacuum chamber, and the radiation generated from the plasma is monitored by an energy monitor unit which measures the pulse energy of the emitted radiation and by a radiation diagnosis unit which detects the radiation characteristics to obtain result data for influencing the excitation conditions for the plasma and to influence the parameters of the plasma generation in an application-specific manner by means of the main control unit.